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March 31, 2006

**VIA ELECTRONIC MAIL**

The Honorable Joseph J. Farnan, Jr.  
United States District Court  
District of Delaware  
844 King Street  
Wilmington, DE 19801

**Re: L.G. Philips LCD Co. Ltd. v. Tatung Company et. al.**  
**Civil Action No. 05-292 (JJF)**

Dear Judge Farnan:

Pursuant to the Court's Order of March 21, 2006, Defendants Chunghwa Picture Tubes, Ltd., Tatung Company, Tatung Company of America, Inc., and ViewSonic Corporation (collectively, "CPT") hereby reply to the letter brief filed by Plaintiff LG Philips ("LPL") on March 24, 2006.

**The '002 Patent**

**1. "Interconnecting"**

***CPT'S PROPOSED CONSTRUCTION:*** "Electrically connecting with conductors"

CPT's construction is supported by the intrinsic record. The word "interconnecting" is used in the claims in the context of "interconnecting substantially all said row lines to one another and substantially all of said column lines to one another." The only embodiment for this "interconnecting" is connecting the row (or column) lines "serially ... via jumpers."<sup>1</sup> 8:5-8; CPT Slides at 15. This usage of "interconnecting" is consistent with the plain meaning of the word that requires direct connection by conductor lines. In contrast, whenever the claims require an indirect connection through a device, they always use the phrase "coupled

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<sup>1</sup> "Jumpers" are short conductor lines. CPT Ex. 6 ("Jumper: ... 3. Electricity. A short length of wire used temporarily to complete or by-pass a circuit.")

The Honorable Joseph J. Farnan, Jr.

March 31, 2006

Page 2

to ... via ..." without exception. 9:5-7,14-22, 34-37, 51-53, 63-65; 10:3-5, 6-8, 9-12, 32-34, 38-40, 41-43, 44-47, 59-62; 11:7-9, 20-24; 12:3-5, 6-8, 9-12.

The specification sheds additional light on the meaning of "interconnecting" by using the word in two other circumstances besides the preferred embodiment. The patent uses "interconnecting" to describe a subpixel solution to the electrostatic discharge problem. 5:65-68; 6:6-9; Fig. 4; CPT Slides at 16. The subpixel solution bears no relationship to the outer guard ring feature in which the claim term "interconnecting" is used. The subpixel feature is thus not the embodiment for the claim element "interconnecting." The meaning of "interconnecting" in the subpixel feature reflects the general meaning of the word as it is used by the patent, and it is used to mean electrically connecting with conductor lines. 5:65-68; 6:6-9; Fig. 4; CPT Slides at 16. Similar usage of "interconnecting" is also found in U.S. Patent No. 4,820,222 ("the '222 patent" or "'222"), which is incorporated into the '002 patent by reference. ('222) 6:42-43, 49-53.

The patent also uses "interconnecting" in a similar manner to describe a testing configuration, where row lines (or column lines) are interconnected together "in a serpentine fashion by respective lines or shorts 158, 160, 162, 164, 166, 168 and 170." ('222) 6:42-43, 49-53. The "lines or shorts 158, 160, 162, 164, 166, 168 and 170" here are conductor lines as in any other electronic schematics. "Interconnecting" thus is used here to mean electrically connecting with conductors.

Contrary to LPL's contention, CPT's construction is not limited to a specific embodiment. CPT's construction is supported by the plain meaning of the word and various usages of the word in the specification, not just in the embodiment. In contrast, LPL's assertion of a definition where "interconnecting" can mean anything other than electrically connecting with conductors, lacks support in the intrinsic or extrinsic evidence.

LPL construes "interconnecting" as "shorting." While it is true that one usage of "shorting" means electrically connecting with conductors, the problem with LPL's construction is that "shorting" has many other meanings, only one of which means "interconnecting." CPT Slides 18-20; Howard Decl. ¶ 21. In the patent itself, "short" has at least three different meanings: (1) Unwanted conductive pathways caused by physical damage, 2:57-62; 4:49-50; CPT Slides at 18, (2) Shunt pathways implemented by transistors and other devices, 7:37-39; 7:63-65; CPT Slides at 19, and (3) Interconnecting (i.e., connecting by conductive lines). 5:65-68; 6:6-9; CPT Slides at 20. LPL ignores these other usages of "short" in the specification, and sidesteps the broad and ambiguous ordinary meaning of this word. Under LPL's construction, "interconnecting" could include physical damage and shunts, which are improper interpretations of the word in the context of the claims. Thus, LPL's construction impermissibly broadens the claim term "interconnecting" in a manner inconsistent with the intrinsic record, and should be rejected for that reason alone.

The Honorable Joseph J. Farnan, Jr.  
 March 31, 2006  
 Page 3

## **2. "Outer Electrostatic Discharge Guard Ring"**

**CPT'S PROPOSED CONSTRUCTION:** "A ring of conductor, located external to the inner electrostatic discharge guard ring if the two rings are used together, for draining off electrostatic buildup to prevent electrostatic discharge."

This phrase is not a term of art and has no established meaning other than what the patent discloses. The patent first describes "an internal ESD guard ring" as being "formed around the pixels 112, 114, 116 and 118." 6:60-63; 7:17-19. The patent then describes an "outer ESD guard ring." 8:2. The patent never says what "outer" means other than referring to its relative position to the internal ESD guard ring. *See* CPT Opening Br. at 8, 16-17; Reply at 5-6. Thus, the correct definition of the outer guard ring should be based on its relative position to the inner guard ring.

LPL's definition requires the outer guard ring to be "outside the active matrix display." The word "active matrix display" is a vague term left undefined by the specification (and will likely cause jury confusion). Normally "active matrix" means the pixel or array area of an active matrix LCD panel. *See* Howard Decl., Fig. 5A & 5B (prior art's illustrations showing "active matrix" being the pixel area). To the extent LPL suggests the outer guard ring should be outside the active matrix, CPT agrees. No guard ring, inner or outer, should be inside the expensive real estate of active matrix.

However, LPL's phrase "active matrix display" literally means the entire active matrix display panel, as the phrase is used by the patent. *E.g.*, 2:12-14 ("manufacture of backplanes for active matrix displays"); 8:65-66 ("A method of manufacturing active matrix display backplanes and displays therefrom"). Thus, LPL's construction calls for the outer ring to be outside of, and thus absent from, the finished display panel. LPL provides no intrinsic evidence to support this definition. LPL's position appears to arise from the erroneous notion that the outer ring must be physically removed at the end of the manufacture. As CPT states in its constructions of "scribe lines" and "corner pad," there is never such a requirement for the physical removal of the outer ring. *See* CPT Br. at 15-16; Reply at 3-4; Slides at 48-54.

LPL also erroneously invokes the doctrine of claim differentiation. It claims that CPT's construction requires claim 1 to have an inner guard ring step, thus erasing the difference between claim 1 and 8. LPL is mistaken. CPT's construction does not require the outer and inner rings be used together. Under CPT's construction, when the outer ring and inner ring are used separately, the terms "outer guard ring" and "inner guard ring" do not connote spatial relations, but are labels similar to the phrases "the first guard ring" and "the second guard ring." However, when used together with the inner guard ring as required by claim 8, the outer guard ring is located external to the inner guard ring. The doctrine of claim differentiation is simply irrelevant here, because claim 1 does not require the inner ring under CPT's construction.

The Honorable Joseph J. Farman, Jr.

March 31, 2006

Page 4

LPL also quibbles on two insignificant points.<sup>2</sup> First, LPL argues that the “ring” should be open or closed ring. CPT’s construction does not in any way preclude a construction of open ring (L or C shaped), and CPT never disputes that point. Second, LPL argues that the outer guard ring cannot “prevent” electrostatic discharge, but only “protect” the panel from the discharge. As CPT stated in its Reply brief and during the hearing, the basis for the ESD protection is the prevention of the specific ESD for which the ESD rings are designed. CPT Reply at 6. The specification indeed uses the word “prevent” or “preventive” to describe the function of the ESD rings. 7:14-18; 8:1-2.

### 3. “Resistance”

**CPT’S PROPOSED CONSTRUCTION:** “A resistance is a circuit element that has a specified resistance value designed to restrict the flow of current. A resistance does not include switching elements such as transistors and diodes.”

LPL supports its “resistance” definition with three arguments based on a single sentence in the specification: “the line 210 is connected to the other set of gate or source lines by a shunt line 224, a shunt transistor 226 and a large resistance 228, such as 100K ohms (illustrated schematically).” LPL Ltr. at 3, (quoting the ‘121 patent, 8:23-26).

LPL first contends that “the use of general term ‘resistance’ supports an exemplary general construction that is not limited to a specific component (e.g., transistor, diode, resistor, etc.).” *Id.* This argument is unsound. The phrase “a large resistance 228” refers to the particular circuit component “228” in Figure 7 of the patent. “Resistance” thus is not used as a “general term” here, but refers specifically to a circuit element that is illustrated with the universal symbol for resistor in a circuit schematic. The phrase “a large resistance 228” should have the same meaning as “a large resistor 228.”

LPL does not explain why “resistance” here is used as a general term. LPL echoes its previous argument that “resistance” is an intrinsic characteristic,” and “[a]ll circuit components ... have the characteristic of resistance.” LPL Opening Br. at 13. LPL ignores that it has admitted that “resistance” is not used for its ordinary meaning of resistive property, but used in the specification to mean “a component.” LPL Ltr. at 3. LPL never explains why it can continue to bestow on “resistance” its ordinary general meaning in contradiction of the intrinsic evidence.

LPL further relies on the exemplary nature of the phrase “such as 100K ohms.” LPL’s argument is misplaced. The phrase “such as 100K ohms” modifies the preceding phrase, “a large resistance 228,” and provides an exemplary value for the “large resistance.” This phrase

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<sup>2</sup> It is LPL, not CPT, that insists on disputing these issues. LPL initially did not construe the term “outer guard ring,” and refused to provide a construction for the term during the meet and confer on March 2, 2006. It later offered its own proposed construction, creating the disputes such as one between “prevent” and “protect.”

The Honorable Joseph J. Farnan, Jr.

March 31, 2006

Page 5

clearly indicates that the “resistance” component must have a large and defined resistance that can be expressed in ohms, although the resistance value does not have to be 100K ohms. This is supported by the subsequent statement in the specification, “resistance 228 minimizes the discharge current surge,” 8:30-31. This statement further evidences the patentee’s idiosyncratic use of “resistance” to mean “resistor,” because restricting current is by definition the function of a resistor.<sup>3</sup> There is no indication that this component can be anything but a large resistor.

LPL also misinterprets the phrase “illustrated schematically” to support its all-inclusive construction of “resistance.” The word “schematic” is a common word used in the electronic and mechanical engineering. It simply means the illustration is not drawn to scale, but a structural diagram. See CPT Ex. 18 (attached to this letter) (“Schematic: n. a structural or procedural diagram, especially of an electrical or mechanical system”). The patent itself uses “schematically” elsewhere to connote the same meaning. 3:57-59 (“The actual size of the transistors 22 and the contacts 24 are not now drawn to scale, but are shown *schematically* for illustration only.”); (222) 6:30-32 (“The row bus line 120 is coupled (*schematically*) by a line 126 to a line 128 which is a *schematic* representation of a gate electrode.”). Thus, contrary to LPL’s assertion, the word “schematically” simply means the component “resistance” was not drawn to scale, but represented by a symbol, which is the universal schematic symbol for a resistor.

Regarding the *Hynecek* reference, LPL does not dispute the fact that *Hynecek* uses the phrase “resistance element” and “resistor” synonymously and interchangeably. CPT Ex. 5, 2:1-4 (“... the connection of each individual device to ground or some reference point through a large value resistor.”); 2:50-55 (“The resistance element 11 is connected to ground or a reference .... Prior to the metallization step when the contact is made between the resistor and the reference, the resistor serves as a connection from the gate 7 to the border area 6”). LPL does not dispute fact that the patentee uses the term “resistance 11” in the prosecution history to refer to “the resistance element 11” in *Hynecek*. CPT Ex. 4, Response to Office Action, p. 2. Thus, the patentee uses “resistance” to refer to a resistor in the prior art.

LPL relies on the patentee’s statement “if resistance 11 is taken to be such a connection.” LPL argues that “one of ordinary skill in the art would understand this conditional argument,” and that “the Applicant intended ‘resistance’ to be a broad term, not limited to a specific component.” LPL Ltr. at 3. LPL misses the point. The patentee used the word “resistance” to refer to a resistor in *Hynecek*, therefore consistent with the idiosyncratic use of the word throughout the specification of the ‘002 patent. The Examiner never mentioned anything about *Hynecek*’s “resistance element 11.” See CPT Ex. 4, Office Action, 1-3. The condition conveyed by the word “if” in the statement only goes to the Applicant’s uncertainty as to whether “resistance 11” is the “connection” at issue. There is no condition or uncertainty that

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<sup>3</sup> “Resistor: (1) An element within a circuit that has specified resistance value designed to restrict the flow of current.” CPT Ex. 3.

The Honorable Joseph J. Farnan, Jr.  
 March 31, 2006  
 Page 6

“resistance 11” refers to “resistance element 11” in *Hynecek*. LPL’s argument is thus misdirected.

“Resistance” therefore means “resistor,” which has a specified resistance value for restricting current flow. Particularly, “resistance” cannot be a “switching element,” because the two terms are used distinctively in the specification to mean two different things, sometimes even in a single sentence. 8:24-27; 9:17-18; 10:7-8; 10:42-43; 12:7-8. This Court should adopt CPT’s construction of “resistance.”

### The ‘121 Patent

#### 1. “Bending Part”

**CPT’S PROPOSED CONSTRUCTION:** “Area of the TCP where a portion of base film is removed where the TCP is to be folded.”

LPL’s proposed construction of “bending part” as “a bendable part of the tape carrier package where the base film is removed” is so overbroad that it is inconsistent with the arguments LPL made in its March 24, 2006 letter to the Court. . Furthermore, the word “bendable” is found nowhere in the specification.

As an initial matter, LPL’s proposed construction, which collapses to “a part of the tape carrier package where the base film is removed” (because any part of the tape carrier package where the base film is removed is “bendable”), is unjustifiably broad. See col. 2, lns. 18-20 (“The base film 24 is removed from the bending parts 10a and 10b. The TCP 10 is easily bent with the aid of these bending parts 10a and 10b.”). This construction covers any part of the TCP where the base film is removed. Thus, in addition to bending parts, such a construction must cover dummy bending parts as well. LPL acknowledges that dummy bending parts are parts of the TCP where the base film is removed. LPL’s proposed construction also includes all other parts of the TCP that have the base film removed, regardless of whether they are bent or folded.

The overbreadth of LPL’s proposed construction of “bending part” makes it unworkable even if LPL’s own out-of-context arguments are accepted as valid. First, in its letter to the Court, LPL states that “a ‘bending part’ is the bendable part of the tape carrier package to be bent.” See LPL’s letter at 5. Thus, LPL’s proposed definition (which encompasses parts of the TCP that are not bent) is much broader than can be justified even by LPL’s own arguments. Second, LPL’s letter states that “[t]he intrinsic record makes clear [there is] a difference between the ‘dummy’ bending part and the bending part.” Again, LPL’s proposed definition of “bending part,” which is broad enough to encompass dummy bending parts, contradicts LPL’s own arguments. Finally, LPL’s proposed definition of “bending part” contradicts its argument that the specification militates in favor of defining “bending part” as being in a “bent position.” Thus, the Court should reject LPL’s proposed definition of “bending part.”

The Honorable Joseph J. Farnan, Jr.  
 March 31, 2006  
 Page 7

LPL's attempt to recast the dispute over "bending part" as a dispute about whether the ordinary meaning of "bent" is the same as the ordinary meaning of "folded" is a red herring. The specification's requirement that "bending parts" must be where the TCP is to be folded has nothing to do with whether the ordinary meaning of "bent" is the same as the ordinary meaning of "folded."

Finally, LPL's letter employs its over used "claim differentiation" argument by comparing claims 1 and 14. LPL ignores the law regarding the appropriate use of the doctrine, which is to prevent courts from construing a claim term in a way that would render the claim superfluous. *See Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (holding that the doctrine of claim differentiation is violated when a proposed construction would render another claim superfluous); *see also Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380-81 (Fed. Cir. 2006) ("Indeed this court has acknowledged that two claims with different terminology can define the exact same subject matter."). LPL's use of the claim differentiation doctrine here is inappropriate, as Claim 1 (which covers "a liquid crystal display device") differs vastly in scope from claim 14 (which covers "a tape carrier package").

## **2. "Dummy Bending Part"**

**CPT'S PROPOSED CONSTRUCTION:** "Area on TCP where a portion of the base film is removed between either the input or the output pad part and the D-IC where the TCP is not folded."

LPL's proposed definition of "dummy bending part," which is a bendable "part of the tape carrier package where the base film is removed, which has a function other than bending," is simply untenable for two reasons. First, the '121 specification requires the dummy bending part to be where the TCP is not folded, regardless of whether or not the TCP is perfectly flat. Second, LPL's proposed construction is ambiguous and would cause substantial jury confusion. As explained in CPT's letter to the Court of March 24, 2006, it is not clear whether LPL's proposed definition (1) allows a "dummy bending part" to have the function of bending in addition to a function other than bending; or (2) requires "dummy bending part" not to have the function of bending.

In its March 24 letter, LPL indiscriminately invokes its claim differentiation argument, attempting to draw a comparison between claim 1 and claims 2-13. As explained above, the claim differentiation doctrine should only operate to preclude claim constructions that would cause claims to have identical scope. Claim 1 (which covers a liquid crystal display device and has only one bending part) has a vastly different scope from claims 2-4 (which recite a second bending part) and claims 5-13 (which cover a tape carrier package). Thus, LPL's claim differentiation arguments are meaningless.

Finally, LPL, in attempting to diminish CPT's prosecution history arguments, helps CPT make its case. LPL admits in its March 24, 2006 letter that "the Applicants distinguished the *Tajima* reference by arguing that the base film [in Tajima] 'is removed only where the tape carrier package is folded.'" In contrast, the applicants argued, the '121 patent

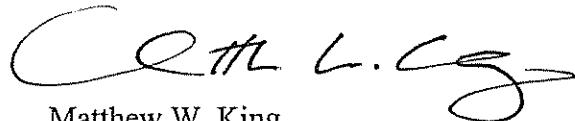
The Honorable Joseph J. Farnan, Jr.

March 31, 2006

Page 8

discloses dummy bending parts where the tape carrier package is not folded. Similarly, LPL admits in its letter that "with regard to the *Tagusa* reference, the Applicants argued that 'the substrate is partially removed only where the wiring board is folded.'" Again, in contrast, the applicants argued, the '121 patent discloses dummy bending parts where the tape carrier package is not folded.

Respectfully submitted,



Matthew W. King

RWW:ps

Enclosure

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UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

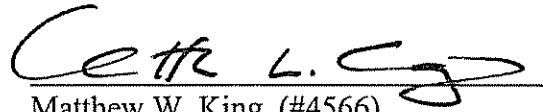
CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on March 31, 2006, I electronically filed the foregoing document with the Clerk of Court using CM/ECF which will send notification of such filing, and hand delivered to the following:

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